TONEBONE



TONEBONE™
Owner's Manual

Radial engineering
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TONEBONE™

Owner's Manual

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1. Introduction:

Congratulations on your purchase of the Radial **Tonebone**™ **Tonebone** pedals bring forth a level of quality and performance never before realized in a tube distortion pedal. Whether set for tones commonly described as 'edge', 'crunch', 'metal' or just plain 'scream' the **Tonebone** gives you rich harmonics and deep bass throughout a wide range of sounds.

This manual has been designed to show the user how to gain access to those sounds and more. Once you have read through, take time to experiment. You will find that the **Tonebone** is so well designed; it is practically impossible to make it sound bad!

Most of all, enjoy. If it isn't fun, it isn't music!

Radial engineering

True to the Music

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Specifications and appearence subject to change without notice.

2. Unpacking your Tonebone:

Your Radial **Tonebone** pedal has been thoroughly tested at the factory, and comes with a 15VDC power supply and this owner's manual. We recommend that you keep the box and original receipt in the unlikely event that you should need to send the unit back for servicing.

3. Powering up and getting connected:

Before you start, turn your guitar amp volume down to zero. **Tonebone** comes equipped with a special 15VAC power adapter with enough power to drive the 12AX7 tube inside. When the power suppy is connected, the **Tonebone** will be in standby mode. Like all tube amps, for best tone let your **Tonebone** warm up for 5 minutes so that it achieves electrical and thermal stability. The LED on the unit lights up when the foot switch is depressed to indicate it is powered up and ready for use.

4. Using Tonebone – The starting point:

Start with all the controls at 12 o'clock and switches set to the off or flat position. Turn your amp up to a comfortable listening level and adjust the LEVEL output control for unity gain, i.e.: the level with **Tonebone** on (LED is on) matches the level with it off (LED off). Now start turning knobs!

You will find that most of the controls are intuitive and extremely sensitive to changes. In other words, small control changes will make big changes in the sound. Take your time and experiment.

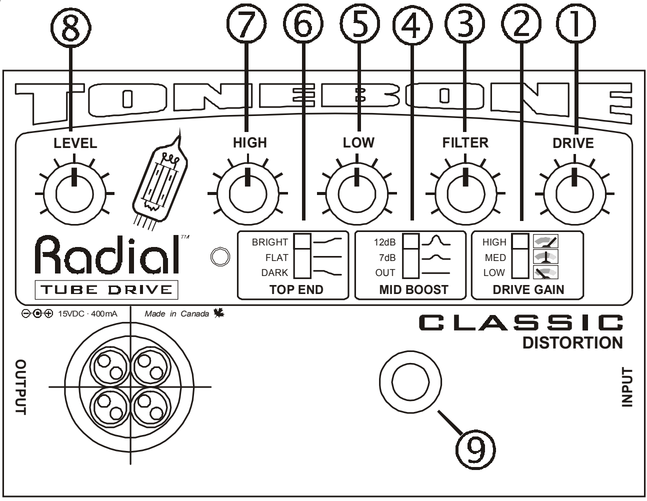
It is important to note that both the **Tonebone** Classic and the **Tonebone** Hot British are ultra-high gain devices that have been designed to provide 'over-compensation' control on all functions. What this means is that each control when set to maximum is able to compensate for other controls that may be completely backed off. For instance, you may have your LEVEL wide open and your DRIVE almost fully off. This gives you maximum flexibility but also opens the door to over-saturation, which could lead to uncontrollable feedback. To safeguard against this, you should never drive all functions to maximum.

At the back of this manual are a number of setups for popular sounds for both **Tonebone** models. Note that you will have to tweak the settings shown on the setup chart to match your specific guitar and amp set up.

In addition to the factory sound charts, a number of blank user setting charts are included at the back of this manual. Photocopy these handy charts and use them to save your own 'found sounds'. Once you get a sound you like, chart the knob positions and guitar/amp/pickup setting. These setup charts will aid in you in getting familiar with the controls of your new **Tonebone**, and help in quickly recreating your exact sounds in the studio.

Now Go Play!

5. Tonebone Classic Function Overview



1 **DRIVE** control: Used to adjust overall amount of input gain & distortion. For even more drive, use the GAIN switch.

2 **GAIN** switch: Used to boost the gain at preamp input. LOW = 0dB MED = +9dB HIGH = +20dB.[+] Hint: Start with GAIN in low position and DRIVE at 9:00 o'clock and LEVEL at 3:00. Then add DRIVE.

3 **FILTER** control: Used to balance the high frequency ratio between the amplifier and the ToneBone - Hint: start adjustments at the full clockwise position and work backwards.

4 **MID BOOST** switch: Gives you +7dB & +12dB boost @ 360Hz. Allows guitar to cut through the mix; especially useful for soloing.

5 **LOW** control: Active 'post-distortion' tone control. Boost or cut ±14.5 dB @ 100 Hz from 12 o'clock position.

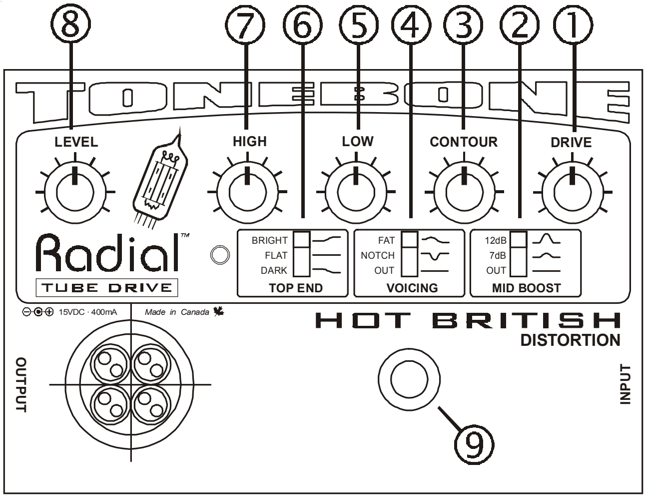
6 **TOP END** switch: BRIGHT = +6dB @ 10KHz FLAT is the Recommended position when the amp's bright switch is on. DARK: -6dB @ 3.3KHz, normally used with super bright inputs.

7 **HIGH** control: Active 'post-distortion' tone control. Boost or cut ±10dB @ 4.3KHz from 12 o'clock position.

8 **LEVEL** control: This is used to adjust the output level without altering any of the tonal characteristics.

9 **Foot-switch**: True-Bypass type; i.e.: when the **Tonebone** is off, the signal passes straight through without any effect. An on/off status indicator LED is provided.

6. Tonebone Hot British Function Overview



1 **DRIVE** control: Used to adjust overall amount of input gain & distortion. For even more drive, use the GAIN switch.

2 **MID BOOST** switch: This gives you +7dB & +12dB @ 360Hz. This allows the guitar to cut through the mix and is especially useful for soloing.

3 **CONTOUR** control: Adjust balance of low & high frequencies in the "NOTCH" & "FAT" VOICING mode. Hint: start at 12 o'clock position

4 **VOICING** switch: In NOTCH position: passive boost coloration of low's & high's in FAT position: passive midrange tight filter.

5 **LOW** control: Active 'post-distortion' tone control. Boost or cut ±14.5dB @ 100 Hz from 12 o'clock position.

6 **TOP END** switch: BRIGHT = +6dB @ 10KHz; FLAT is the Recommended position when the amp's bright switch is on. DARK = 6dB @ 3.3KHz; normally used with super bright inputs.

7 **HIGH** control: Active 'post-distortion' tone control. Boost or cut ±10dB @ 4.3KHz from 12 o'clock position.

8 **LEVEL** control: This is used to adjust the output level without altering any of the tonal characteristics.

9 **Foot-switch**: True-Bypass type; i.e.: when the Tonebone is off, the signal passes straight through without any effect. An on/off status indicator LED is provided.

7. Changing the tube:

Your **Tonebone** has been designed to provide years of performance before changing the tube. In fact, it is unlikely that a tube change will be necessary for two to three years or more, depending on use. Change the tube only when a degradation of sound is noticeable.

<u>Disassembly</u>

1. Remove the rubber knobs by pulling them straight up. These pressure fitted knobs should be removed with care to avoid damage.

2. Remove the nuts and washers securing the potentiometer, foot switch, and input/output using an open ended wrench or socket. Please use caution so as not to mar the exterior finish.

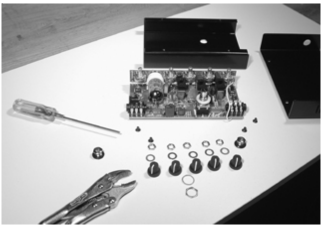


Ready to change the tube? Ok, lets start here.

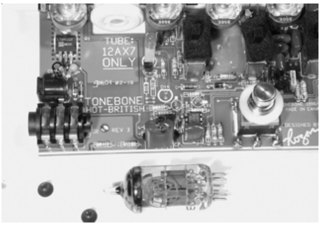


Knobs off, nuts & washers off, side jack nuts & washers off, now removing screws.

3. Remove the 4 bottom screws that hold the top and bottom chassis halves together. Carefully separate them. Note that the chassis top and bottom fit snugly so a little careful force may be needed to clear the two side mounted ¼" input and output connectors. Watch you don't loose the nylon washer between the footswitch and the chassis top!



Ready to wiggle tube out of the socket.



12AX7 tube replacement.

4. Remove and replace the tube: Gently loosen the 12AX7 tube in the socket by wiggling it back and forth.

<u>Reassembly</u>

1. Install the PC board to the Chassis top: Carefully align the potentiometers, LED and footswitch with the holes in the chassis and assemble through the top. Don't forget the nylon footswitch washer!

2. Attach the pot and footswitch washers and nuts, just finger tight for now, to allow alignment of the jacks when the bottom is attached.



Spread chassis sides to clear input & output jacks.



Press on knobs with shafts counter-clockwise and pointers at 7 o'clock.

3. **Carefully push the chassis bottom on,** spreading the sides slightly so as not to stress the side mounted ¼" input and output jacks.

4. **Attach the side ¼" jack washers and nuts:** Do not over-tighten the plastic (for isolation) jacks as they strip easily! Attach the 4 chassis screws (don't over-tighten). Now you can tighten up the potentiometer shaft nuts.

5. **Re-install the knobs...** first rotate the potentiometer shafts fully counter-clockwise. Place the knobs over the shafts so they point to 7 o'clock and push straight down.

6. **Test the pedal to make sure it works…** plug in the power. The LED should light when you depress the footswitch and you will see the tube filament light up through the side vents.

8. Trouble shooting:

I am not getting any sound at all…
Start by connecting your guitar directly to your amplifier and checking each cable to make sure they work. Then, make sure that these are plugged in correctly.

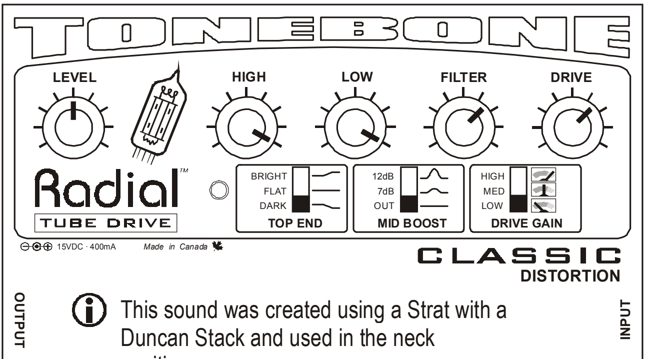
I am getting sound but no distortion…
Make sure you have not connected the Tonebone backwards by reversing the input and output. If connections are correct, check the tube. If the problem persists, see your Tonebone dealer.

The LED does not go on…
Check the power adaptor to make sure it is plugged in. If the LED does not light up, check the outlet with another device to make sure power is present. If it still does not light up, check the power supply with a voltmeter or have your dealer check it.

The sound has changed, it sounds thin…
The tube may needs changing. Remove the tube and bring it to your dealer to have him test it. If low, replace with a 12AX7.

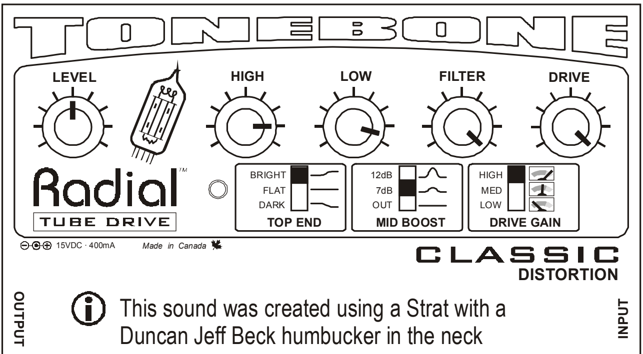
I am getting radio signals though my amplifier…
Poor quality cables and bad grounding are usually the cause. Check to make sure your amplifier is properly grounded with a 3-prong A/C cord and that the wall receptacle is standard 3-prong duplex and wired correctly. Make sure you are using high quality coaxial guitar cables with proper shielding. Radial **Tonebone** pedals are engineered and tested to ensure RF is eliminated as a source of noise.

Slow Hand Bluze



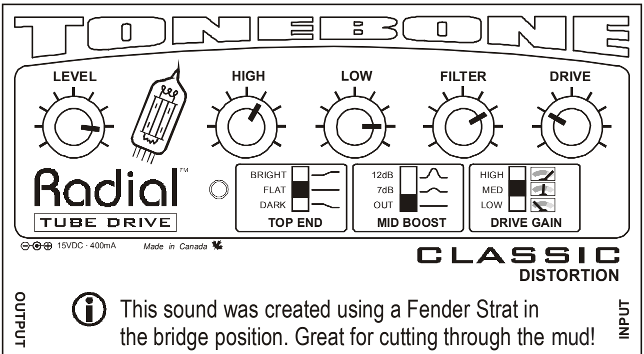
This sound was created using a Strat with a Duncan Stack and used in the neck position.

Joe Sat Solo



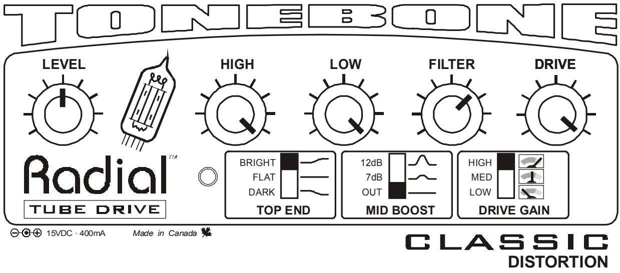
This sound was created using a Strat with a Duncan Jeff Beck humbucker in the neck

Adams Apple



This sound was created using a Fender Strat in the bridge position. Great for cutting through the mud!

ZZ Texas Riff

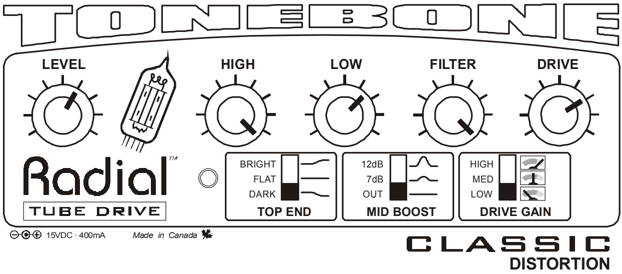


OUTPUT

This sound was created using a Strat with a Duncan Jeff beck in the neck position

INPUT

Chunky Rhythm

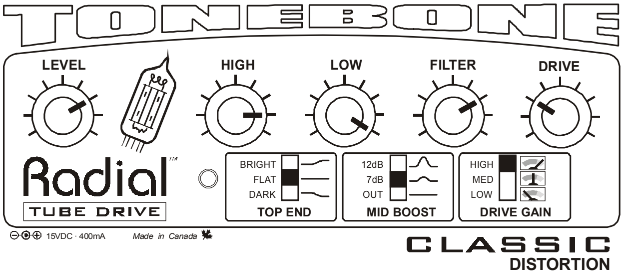


OUTPUT

This sound was created using a Strat in the middle position.

INPUT

Water Smoke

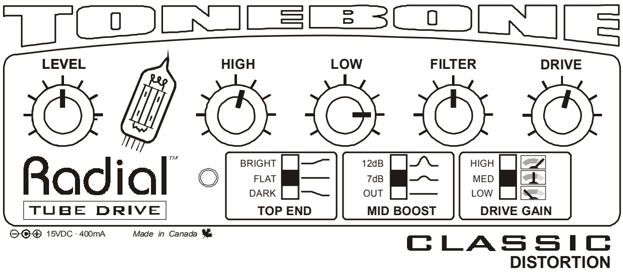


OUTPUT

This sound was created using a Strat in the bridge position. Tons of meat.

INPUT

Deep Lazy

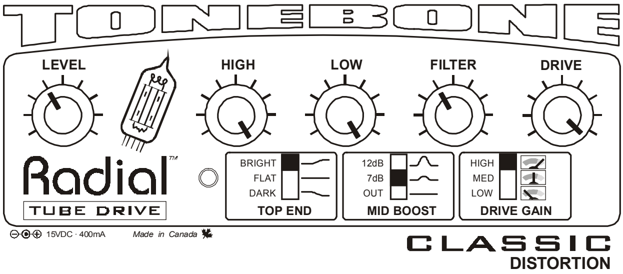


OUTPUT

This sound was created using a stock Strat with a Twin using the middle pick-up. Move to the bridge pickup for more cut.

INPUT

Dire Violin Singing Strat

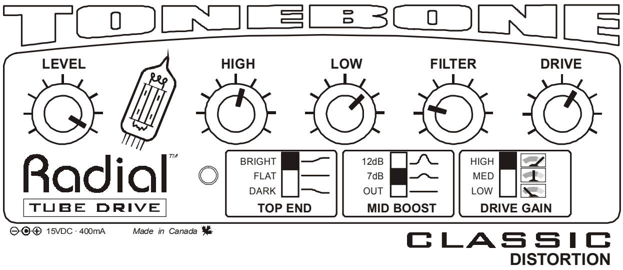


OUTPUT

This sound was created using a Les Paul in the neck position. Used with volume control for effect.

INPUT

Metalic Shrine

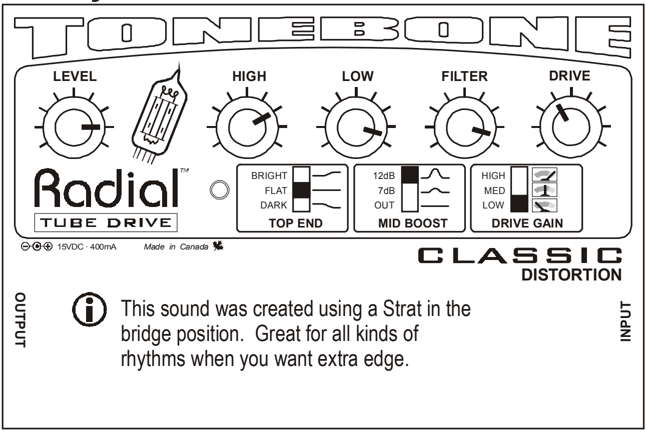


OUTPUT

This sound was created using a Strat in the bridge position. Big sound with small pick-up!

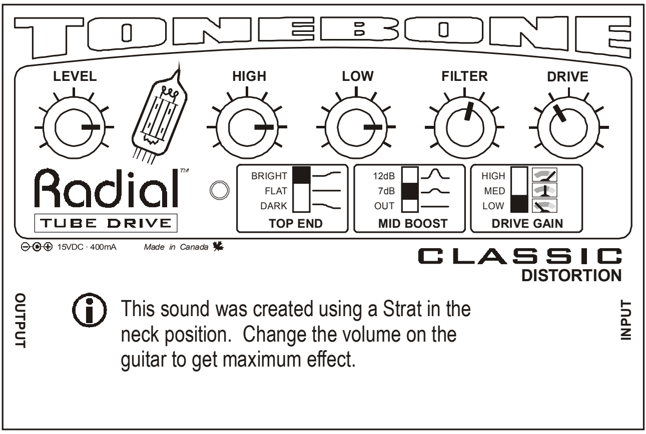
INPUT

Johnny B. Goodness



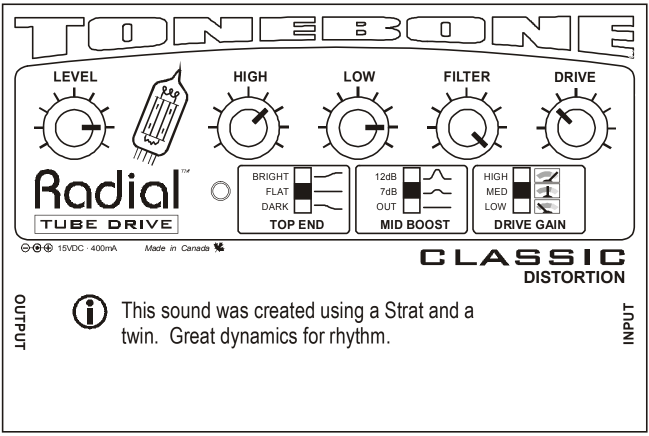
This sound was created using a Strat in the bridge position. Great for all kinds of rhythms when you want extra edge.

Clean Voodoo Child



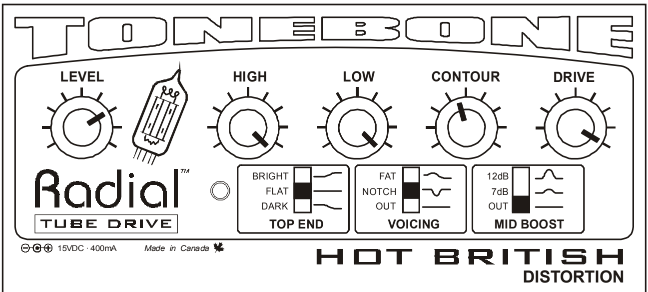
This sound was created using a Strat in the neck position. Change the volume on the guitar to get maximum effect.

Stone Age Sugar



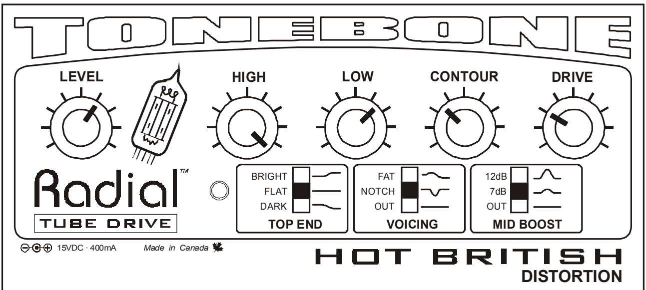
This sound was created using a Strat and a twin. Great dynamics for rhythm.

Texas Tornado



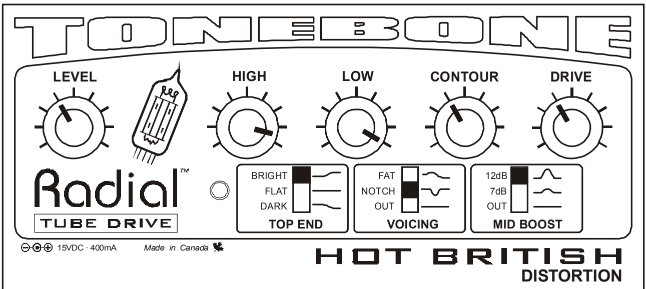
This sound was created using a Strat with a Duncan Stack in the bridge position. Try also single coil in the mid position.

Stevie R Neck



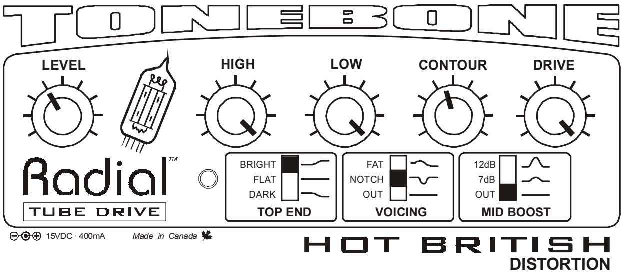
This sound was created using a Strat in the neck position. Try reducing the guitar volume and bring up for solos.

Acey Deacy Chunk



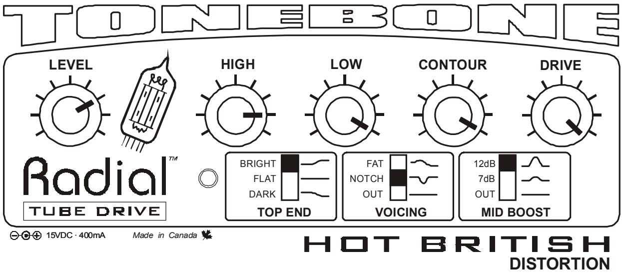
This sound was created using a Strat with a Duncan in the bridge position. Adjust the drive to taste. Very chunky tone with lots of articulation.

Xtra Grind



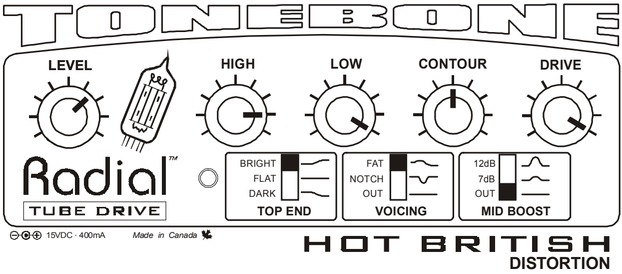
This sound was created using a Strat with a Duncan in the bridge position. Great for drop tuning and fast muted playing. Adjust Contour to taste.

Eric’s Buzz Solo



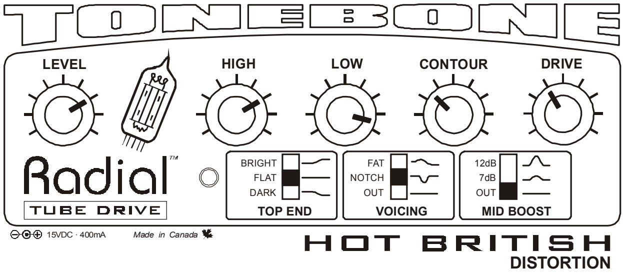
This sound was created using a Les Paul in the neck position. Try rolling off the tone and then bring up the level to offset.

Early Zeppelin



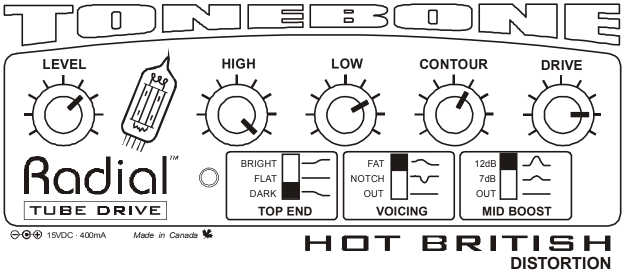
This sound was created using a Les Paul in the bridge position. Great vintage tones gives you tons of personality!

Big Mean Scoop



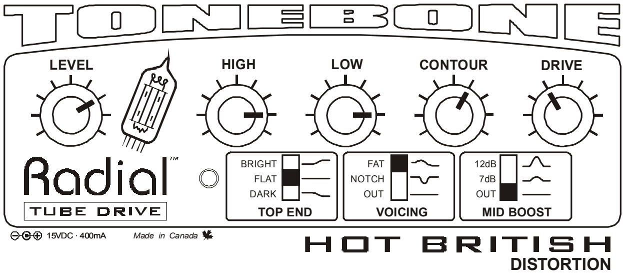
This sound was created using a Strat in the bridge position. Great for metal where you want total control over the stage... Or the world for that matter.

Dark Solo



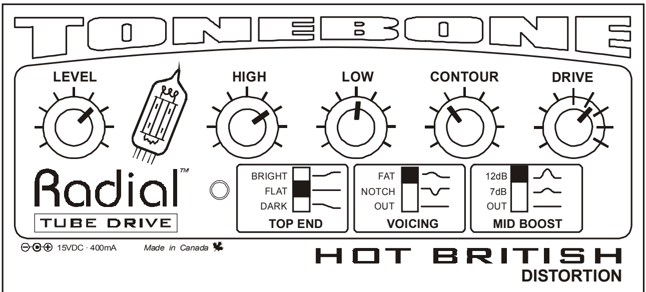
This sound was created using a Strat in the middle and then bridge position. Lots of sustain and mid to cut through without too many overtones.

Jethro's Snot



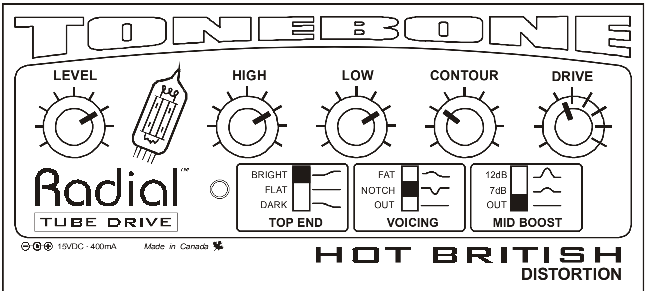
This sound was created using a Strat in the bridge position. Great overtones and dynamics.

Crimson Solo



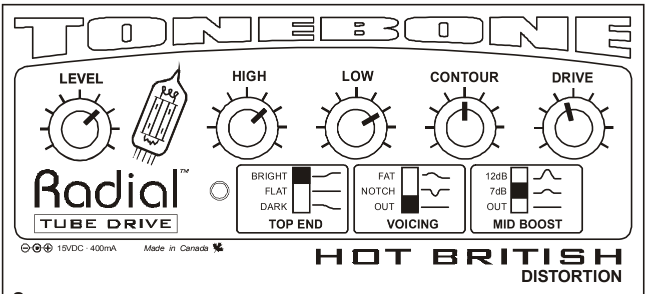
Vintage Strat neck pickup with tone control for this pickup rolled off.

King Kong

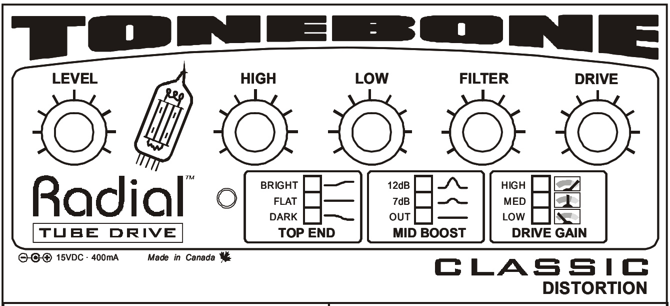


This sound was created using a Strat in the bridge position.

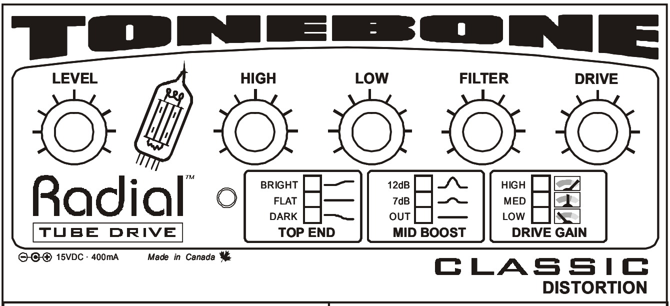
Smokin' China Grove



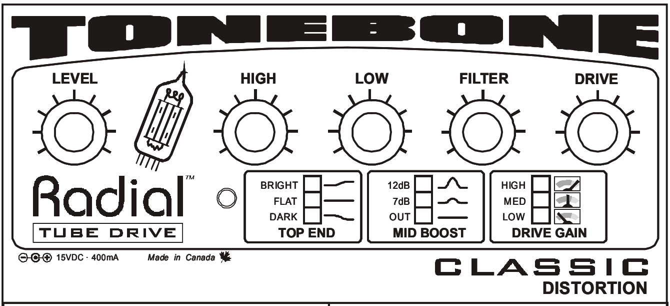
This sound was created using a Strat in the bridge position. That big 80's Marshall tone.



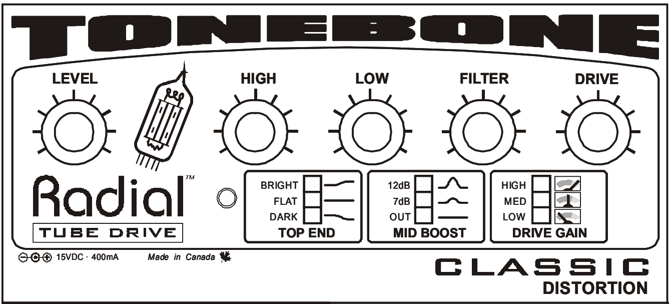
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Reference:	Amp:



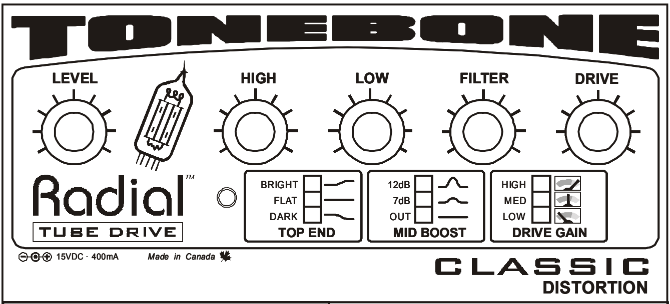
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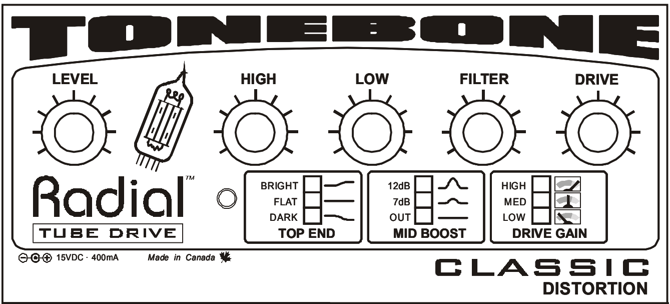
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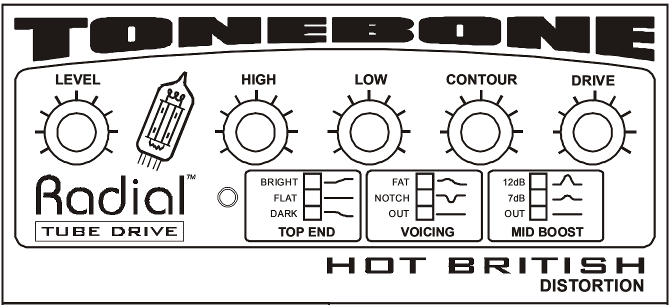
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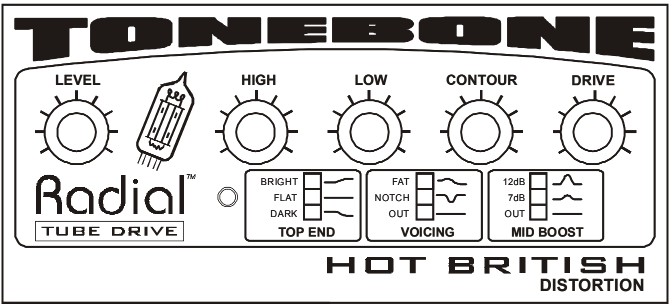
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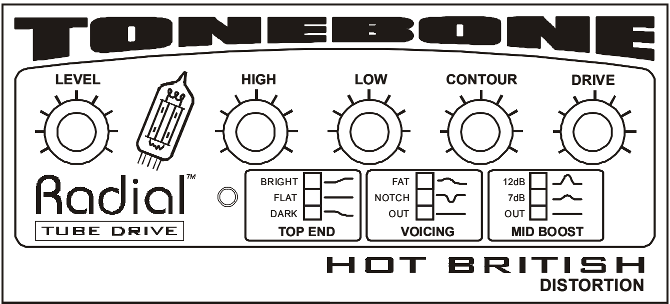
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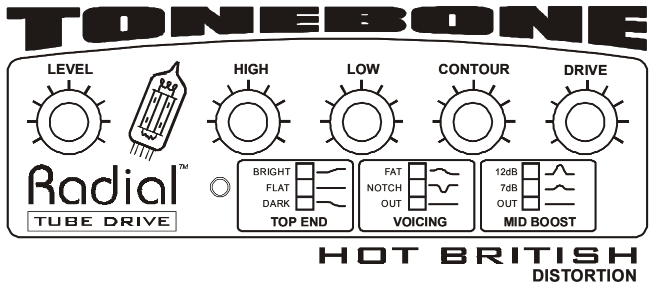
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Reference:	Amp:



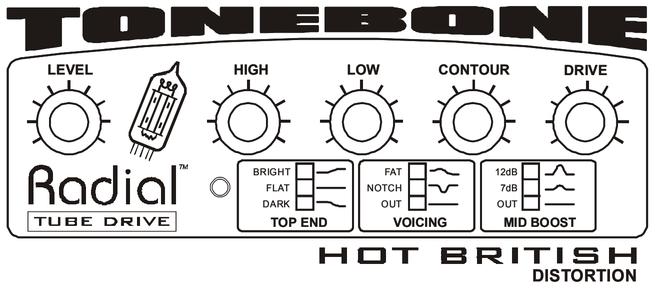
Sound:	Guitar:
Date:	Pickup:
Reference:	Amp:



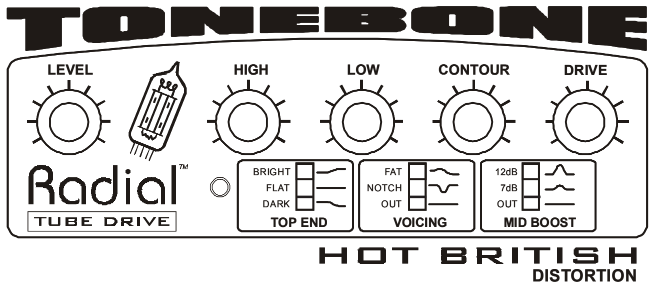
Sound:	Guitar:
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Sound:	Guitar:
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Sound:	Guitar:
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Sound:	Guitar:
Date:	Pickup:
Reference:	Amp:

RADIAL LIMITED ONE YEAR WARRANTY

Radial Engineering - a division of JP Cabletek Electronics Ltd. ("Radial") warrants this product to be free from defects in material and workmanship to the original owner and will remedy any such defects free of charge according to the terms of this warranty. Radial will repair or replace at its option any defective component(s) of this product, excluding the finish, wear and tear on components under normal use, and the tube and footswitch (which are warranted for 90 days), for a period of one (1) year from the original date of purchase. In the event that a particular product is no longer available, Radial reserves the right to replace the product with a similar product of equal or greater value. To make a request or claim under this limited warranty, the product must be returned prepaid in the original shipping container (or equivalent) to Radial or to an authorized Radial repair centre and you must assume the risk of loss or damage. A copy of the original invoice showing date of purchase and the dealer name must accompany any request for work to be performed under this limited warranty. This limited warranty shall not apply if the product has been damaged due to abuse, misuse, misapplication, accident or as a result of service of modification by any other than an authorized Radial repair centre.

THERE ARE NO EXPRESSED WARRANTIES OTHER THAN THOSE ON THE FACE HEREOF AND DESCRIBED ABOVE. NO WARRANTIES WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL EXTEND BEYOND THE RESPECTIVE WARRANTY PERIOD DESCRIBED ABOVE OF ONE YEAR.

RADIAL SHALL NOT BE RESPONSIBLE OR LIABLE FOR ANY SPECIAL OR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF LOSS ARISING FROM THE USE OF THIS PRODUCT. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH MAY VARY, FROM STATE/PROVINCE TO STATE/PROVINCE.

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